

Practice A

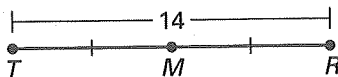
For use with pages 53–59

Complete the statement.

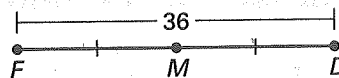
- The ? of a segment is the point on the segment that divides it into two congruent segments.
- A ? is a segment, ray, line, or plane that intersects a segment at its midpoint.
- To ? a segment means to divide the segment into two congruent segments.

 M is the midpoint of the segment. Find the segment lengths.

4. Find
- TM
- and
- MR
- .



5. Find
- FM
- and
- MD
- .



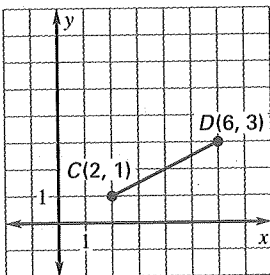
6. Find
- MR
- and
- QR
- .



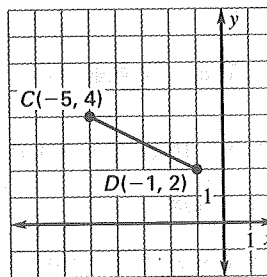
7. Find
- KM
- and
- KL
- .

**Use the Midpoint Formula to find the coordinates of the midpoint of \overline{CD} .**

8.



9.

**Sketch \overline{PQ} . Then find the coordinates of its midpoint.**

- 10.
- $P(0, 0)$
- ,
- $Q(6, -4)$

- 11.
- $P(0, 8)$
- ,
- $Q(2, 6)$

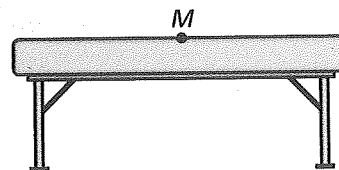
- 12.
- $P(1, 2)$
- ,
- $Q(-5, 0)$

 M is the midpoint of \overline{AB} . Find the value of x .

- 13.
-

- 14.
-

15. A balance beam is shown at the right. Your gymnastics routine includes a jump at the midpoint M of the beam. If the length of the beam is 500 centimeters, what is the distance from the end of the beam to the jump location?



Practice B

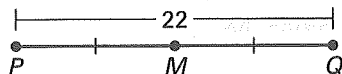
For use with pages 53–59

Determine whether M is the midpoint of \overline{JK} . Explain your reasoning.

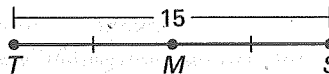


Find the segment lengths, given that M is the midpoint of the segment.

4. Find PM and MQ .

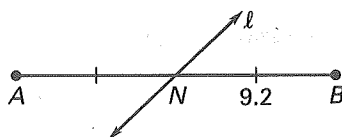


5. Find TM and MS .

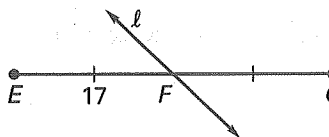


Line ℓ bisects the segment. Find the segment lengths.

6. Find AN and AB .

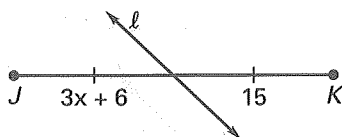


7. Find FG and EG .

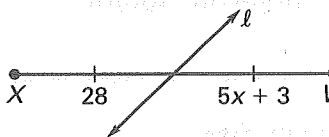


Line ℓ bisects the segment. Find the value of x .

8.



9.



Find the coordinates of the midpoint of \overline{FG} .

10. $F(-2, 3)$, $G(4, -1)$

11. $F(1, -5)$, $G(4, -3)$

12. $F(-6, 1)$, $G(-2, 7)$

13. $F(3, -2)$, $G(4, -4)$

14. $F(-1, 7)$, $G(5, -2)$

15. $F(-3, 6)$, $G(-1, 2)$

16. You are planting flowers in a border that is 11 feet long. If you want to plant a large rosebush halfway along the border, how far is the bush from the ends of the border?

